SYNOPSIS

ON

FRAUD RISK MANAGEMENT PRACTICES IN INDIAN BANKING SECTOR: A STUDY OF BANKERS' AND INTERNAL AUDITORS' PERSPECTIVE

(Submitted in lieu of partial fulfillment of Ph.D. course work)

SUPERVISED BY:

Dr. Deepa Mangala

PROFESSOR

SUBMITTED BY:

Lalita

Research Scholar

Roll No 190100090152

HARYANA SCHOOL OF BUSINESS

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY,

HISAR-125001 (HARYANA)

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1. TOPIC OF THE STUDY

Fraud Risk Management Practices in Indian Banking Sector: A Study of Bankers' and Internal Auditors' Perspective

2. INTRODUCTION

Banks are the engines that drive the operations in the financial markets. Banks act as an intermediary that bridges the gap between the sources of funds and their application. Thus, it is pivot around which every economy in the world revolves. It is evident that banking industry is growing rapidly due to globalization and technological advancement. With the growth of banking industry, frauds in banking sector have emerged. Fraud has been acknowledged as one of the most critical threat to the development of entire business world especially for banking sector. It is present in every sphere of life whether it is corporate sector, govt. sector or banking sector and no single country is immune to it. However the amplitude of the impact of fraud occurrence is eminently greater in banks than any other type of industries due to the financial nature of the industry. Association of certified fraud examiners (ACFE, 2011), defines fraud as **"Any illegal act characterized by deceit, concealment or violation of trust. These acts are not dependent on the application of threat of violence of physical force"**. Fraud encompasses a wide range of illicit practices in banking sector involving such as advance related fraud, fund diversion, forged documentation, cyber frauds, fraudulent money transfer, letter of credit and occupational fraud etc. which create an obstacle in its smooth functioning, in fact fraud has prevented many banking institutions from achieving their goals. Frauds in banking sector occur due to lapses in bank's control system which can be in various forms such as low compliance level, poor fraud mitigation policies etc. A major obstacle in addressing the menace of fraudulent practices in banking sector is difficulty in identifying expeditiously as it occurs. Both increasing incidences of frauds in financial sector and delay in its' detection and reporting is a matter of severe concern. Although, it is not possible for banks to eliminate frauds completely, however a certain level of preparedness can go a long way in countering fraud risk. In order to manage the risk of fraud and its' possible loss, banks use early warning signals. Early warning signals alert the bank officials whenever there is some wrongdoings or indication of fraud so that immediate attention and action can be taken by the management. These EWS are called red flags. Thus red flags are viewed as a method for fraud detection. Because banks act as custodians of other people's money, it is imperative for them to develop

a strong mechanism against fraudulent practices so as to maintain public confidence in it. Although, several measures have been taken by professional bodies, standard setters and law enforcement to mitigate the incidences of fraud, yet it is still rising day by day. Various Statistical & Data Analysis and Artificial Intelligence Techniques are used by banking sector to combat financial crimes. With the advancement of technology, fraud has become very complex and even more difficult to detect, thus the techniques used to combat with it must also be sophisticated. Thus, it is not wrong to say that technology is a double aged sword. On one side it creates opportunities for perpetrators to perpetrate fraud while on the other side it helps in developing more advanced techniques to combat the same. Internal auditing also plays a major role in fraud mitigation by ensuring better practices, compliance with rules & policies and proper use of resources in banking sector. It also provide perspicacious information to management about lapses in organizations' internal control that require immediate attention. In India, during the last two decades the news media have reported a number of high profile bank fraud cases which were perpetrated with insider support. These fraud cases affect banks' reputation negatively as well as spoil the relationship with other stakeholders. Any financial threat to banking institution has multiplier effects on other sectors of economy that cripple entire economy of a nation. As fraud remains the most ominous risk to stakeholders, protecting the organizational resources from such fraudulent practices is one among the top priorities of the concerned regulatory. The security of banking institution has become a critical issue for regulatory authorities these days. Hence, there is a dire need to review this menace again so as to address the new issues cropping up in the banking industry.

3. LITERATURE REVIEW

This section deals with the review of literature pertaining to the current research. The review of literature covers different categories of frauds such as cyber frauds, control frauds, deposit related frauds and various anti- fraud tools to combat such frauds. Fraud mitigation practices of different countries have also been studied for broader understanding of management of financial crimes.

Frauds in the banking industry: Nature and Trends

Frauds were occurred in a banking institution due to systematic or human failures that could be perpetrated by employees or third party or with collusion of both which were advance related frauds, technological frauds and other type of frauds like cheque frauds, deposit

frauds or KYC related frauds (Sharma and Sharma, 2018). It is considered as a universal problem which is present in most of the countries all over the world but such fraudulent practices vary in areas in different countries (Asmah, Atuilik and Ofiri, 2019). On the other hand Akindle (2011) stated that Fraudsters had channelized their energies in devising various strategies to take undue advantages of customers' and staff's carelessness. He further stated that once fraud took place and of course, it was detected in time but the amount lost in fraud got impossible to recover. Agwu and Edwin (2014) opined that frauds were committed by insider or outsider to obtain money, property or to ensure personal and business advantage or to avoid payments through intentional misrepresentation. While Awang and Ismai (2018) observed that occupational fraud perpetrated by crook employees at workplace included asset misappropriation and fraudulent financial reporting which misled the various stakeholders. In banking frauds staff was involved in every stage of fraudulent practices ranging from the beginning, execution to concealment (Akinyomi, 2012). Omurgonulsen and Omurgonulsen (2007) observed that fraudulent accounting practices were used by owners and top management in order to manipulate the information and defrauded the depositors and the banking sector authorities. Hollow (2014) asserted that lower level employees emanated away the profit obtained from fraudulent practices while upper level employees perpetrated financial crimes to inflate the profits of their concerned banking institutions either directly or through illegal means. Most of the fraud cases were never reported to the concerned authorities rather repressed due to fear of losing reputational image in public domain (Abiola and Idowu, 2009; Akindle, 2011). On the other side Malik and Islam (2019) defined cyber frauds as a group of illicit practices committed by offenders in virtual environment by using various digital technologies. Phishing (via e-mails) was one of the most popular types of online identity theft among other complicated means such as Vishing (via voice call), Smishing (via SMS) and spoofing (via duplicating an original bank site) to steal the personal information of users (Geeta, 2011). Credit card frauds could be perpetrated in many ways ranging from corporally stealing to hacking a merchant's database to steal customer's credit card information (Prabowo, 2011). While Chang (2008) described that advance fee fraud was a tempting cyber fraud that caused loss of big bucks per year all over the world. Cross and Kelley (2016) opined that online frauds devastated the lives of thousands of people all over the world not only economically but also psychologically. Increased use of ATM cards led to increase the inclination of offenders to perpetrate fraudulent practices through ATM frauds. However Cross and Cassandra (2019) found that differentiating financial offences perpetrated across online and offline environment had no relevance. Although new money transfer

technologies had developed and created many new opportunities for fraud offending yet traditional communication means also remained as an important medium for many offenders. Ilter (2009) opined that although banks in Turkey were being audited regularly by independent audit firms as well as by internal auditors, still some banks were able to misuse the public fund deposited in these banks. This money was transferred by nefarious employees illegally to their bogus companies for their personal interest and never returned back. While talking about India, Geeta (2011) stated that identity theft through Phishing had been increasing rapidly and posed a major threat to the financial institutions and online business firms. Although most of the banking institutions were taking initiatives to tackle the problem yet more work was to be done in case of small and rural banks. Money laundering was the most common type of practice that occurred in mortgage loan handling branches whereas credit loan frauds were common in higher purchase loan branches in Malaysian banking industry (Sanusi, Rameli and Isa, 2015). On the other hand Adeoti (2011) investigated expansion of various ATMs frauds in Nigeria and found that card jamming was the major ATM fraud perpetrated by offenders followed by shoulder surfing and stolen ATM cards. Counterfeiting (forgery), bribery and money laundering were the most common type of fraud risk whereas dormant accounts and cheques were the best fraud schemes methods used by offenders to perpetrate frauds in Greek commercial banks and forged maker and forged endorser were the two main categories of forged documentation frauds (Lois and Velli, 2019). Chang (2008) examined various advance fee fraud cases on the internet during August 2006 to January 2007 and found that various versions of advance fee fraud had emerged in Nigeria as well as in other countries which were assertion of authority or expert power, mimicking referencing person/organizations, reciprocation and providing partial legitimacy. Ponzi-scheme was the most common fraudulent practice perpetrated by the staff or employees in the Ghanaian banking industry (Asmah et al., 2019). White collar crimes were harder to detect as these were related to complex financial manipulation and perpetrated behind closed door (Yeoh, 2016; Abiola and Idowu, 2009). Cheque Kitting, Cheque Fraud, Clearing Fraud, Telex Fraud, Account Opening Fraud and Computer Fraud were some fraudulent practices committed by internal or external parties in Nigeria (Akindle, 2011). Cheng and Ma (2009) observed that white collar crimes in China had been on rise owing to enormous nexus among government officials, bank insiders and business criminals. Financial crimes were somehow different from other police investigation based crimes as majority of fraud cases investigation started with only suspicion which indicated that fraud had occurred (Agwu and Edwin, 2014).

Fraud Indicators in Banking Sector:

Financial pressure in terms of loans with huge repayment has motivated the staff to perpetrate fraudulent practices (Asmah et al., 2019; Kazemian, Said, Nia and Vakilifard, 2019; Avotri and Agbanyo, 2020; Kamande, Kiragu and Musumba 2018). Bonny, Goode and Lacey (2015) opined that self- imposed financial pressure and gambling followed by drug dependency are the most popular motivating factors for fraudulent financial reporting. Personal pressure and incentives in terms of large personal debts are the main motivating factors for lower level employees while mid or senior level employees are motivated by external and work related pressures for committing fraud at workplace (Hollow, 2014). However Said, Alam, Ramali and Ragidi (2017) revealed that financial pressure has not much influence on employees' fraudulent behavior. Weak internal control system in some areas of banking institutions provided opportunities which motivated the offenders to commit financial crimes (Asmah et al., 2019; Kazemian et al., 2019; Said et al., 2017; Avotri and Agbanyo, 2020). Opportunities available for committing fraudulent crimes are not same for lower level employees, mid-level employees and upper level employees (Hollow, 2014). Rationalization is another motivating factor for committing fraud through which offenders justify their offence as being normal and acceptable (Asmah et al., 2019; Kazemian et al., 2019; Said et al., 2017; Avotri and Agbanyo, 2020). Capabilities occupy a major role in frauds which motivate the offenders to commit fraud, as there have been many frauds of big bucks which would not have been successfully perpetrated without ideal person owing ideal capabilities (Avotri and Agbanyo, 2020; Said et al., 2017). While Aigienohowa, Okoye and Uniamikogbo (2017) used the Fraud Box Key Model and found that poor corporate governance play a major role in fraud occurrence rather than opportunity, capacity, rationalization and pressure. Ethical judgment has the smallest impact on fraudulent financial reporting intentions of accounting practitioners and top managers in banking industry (Said et al., 2017; Awang and Ismail, 2018). Attitude and subjective norms have significant influence on fraudulent financial intentions of accounting practitioners in banking industry. Gambling is another motivating factor for fraudulent financial practices (Bonny, Goode and Lacey, 2015). More financial crimes were perpetrated by female employees than male employees at workplace but the value of offending was larger per case for male employees than female employees (Bonny, Goode and Lacey, 2015). While Holtfreter, Beave, Reisig and Pratt (2010) found low self-control was a crucial indicator of fraudulent practices as it increased the opportunities for involving in two common types of frauds: Cheque Fraud and Credit

Card Fraud. If staff kept on a particular position for too long, they gained experience in committing financial crimes and thought that their fraud would not be discovered (Abiola and Idowu, 2009). Poor risk- management is the principal cause of bank frauds which lead to its failure (Ajibo, 2015). Poor corporate governance practices in the banking industry contributed to various fraudulent financial crimes perpetrated by employees (Yeoh, 2016; cheng and Ma, 2009). Lack of right policy framework, and, inadequate training to staff, poor working conditions, lack of information sharing, poorly defined duties and responsibilities, lack of due diligence on part of auditors and staff, over-burdened staff are some of causes which contribute to fraudulent practices in the banking sector (Abiola and Idowu, 2009; Agwu and Edwin, 2014; Akindle, 2011; Bhasin, 2015). Kamande, Kiragu and Musumba, (2018) observed that higher customer complaint on staff, high level of employees customer relationship and employees lifestyle could be some fraud indicators in banking sector. Kazemian et al., (2019) also opined that inadequate physical control by security staff, transactions computed in untimely manner, lack of proper control on cash boxes, and unrestricted access to corporate check books contribute in fraud occurrence in banking sector. Lack of financial incentives and poor remuneration to employees led to employee dissatisfaction and motivated the employees to commit fraud (Akinyomi, 2011; Akindle, 2011; Bhasin, 2015). However, Abiola and Idowu (2009) asserted that greed was the main factor which contributed in fraud occurrence at workplace rather than poor salaries. Many insider informants are hesitant in reporting to concerned authorities about internal financial frauds in banking sector (Cheng and Ma, 2009). RBI has introduced many new mechanisms for banks to check loan frauds, set up central fraud registry and red-flagged account concept however investigation and prosecution of fraudsters in India is very slow and time consuming process (Bhasin, 2015). Fouzi, Szulczyk and Basyith (2018) observed that lack of information sharing about financial data among financial institutions create opportunities for offenders to perpetrate financial crimes. Omurgonulsen and omurgonulsen (2007) stated that poor legal framework, lack of autonomy in govt. regulations and sluggish modus operandi of judicial system in prosecuting against offenders are some of the causes of fraudulent accounting practices. Avotri and Agbanyo, (2020**)** stated that concentration of ownership of a bank in the name of single person or family could lead to the high incidences of frauds in the banking sector as it grants unnecessary capacity to the owner which lead to misuse of assets.

Fraud Prevention and Detection measures:

Aifian, Tarjo and Bambang (2017) discussed about three antifraud strategies used in banking sector which have positive influence on fraud prevention. The study stated that prevention pillar i.e. strong internal control system reduces the opportunities available for fraudsters, whistleblowing works as detection pillar that creates fear of being caught among fraudsters and audit investigation as an investigation pillar ensures the effectiveness of antifraud tools and control system. (Cheng and Ma, 2009) also stated that a three-fold approach – deterrence, prevention and awareness should be adopted to combat bank frauds and law enforcement agencies must be provided more institutional autonomy, resources and an appropriate mechanism should be established to encourage the whistle-blowers. While Agwu and Edwin (2014) stated that fraud prevention should be a two–fold approach on one side reducing the opportunities for offenders, and on the other side making the offenders believe that their fraud would be caught. Cross and Kelly (2016) opined that prevention could become a crucial approach in reducing financial crime by stopping victims from sending personal information and money. Business ethics and corporate governance must be reconstructed to enhance the compliance level with prescribed policies (Cheng and Ma, 2009; Yeoh, 2016; Sanusi et al., 2015). Internal control system must be improved in order to ensure that employees may not take advantage of loopholes of poor working control system (Asmah et al., 2019; Kolapo and olaniyan, 2018; Akinyomi, 2012; Sanusi, Rameli and Isa, 2015; Akindle, 2012; Sanusi et al., 2015). Employees should be properly scrutinized to check their past records before recruitment (Kolapo and olaniyan, 2018; Akinyomi, 2011; Abiola and Idowu, 2009; Akindle, 2011; Awang and Ismail, 2018; Kamande, Kiragu and Musumba, 2018). Good salary structure and effective working environment could help in mitigating fraud occurrence (Abiola and Idowu, 2009). Employees should be closely monitored as it acts as Red Flag if they are living beyond their means (Bonny, Goode and Lacey, 2015; Abiola and Idowu, 2009; Akelola, 2015; Agwu and Edwin, 2014; Kamande, Kiragu and Musumba, 2018). Customers as well as the employees in banking institutions must aware regarding possible cyber frauds and artificial intelligence programs and strong encryption method to encrypt the sensitive data must also be used to reduce the cyber frauds. (Geeta, 2018; Soni, 2019). Bonny, Goode and Lacey (2015) further suggested that reporting to concerned authorities, efficient prosecution process and awareness of official sanctions among the workforce are crucial factors in fraud prevention. Banks and other organisations should conduct security training programs to enhance the employees' awareness about security mechanism (Malik and Islam 2019; Akelola, 2015; Akindle, 2011; Lois and Velli, 2019; Agwu and Edwin, 2014). Adeoti (2011) concluded that biometric token was the safest

mean in combating ATM frauds and customers must not release their card or delegate to anyone to ATM machine. Forensic accounting practices must be adopted by banking institutions in order to tackle the problem of frauds (Aigienohuwa et al., 2017). Birstaker, Broody and Pacini (2006) found that password protection, firewalls and internal control reviews are the mostly used techniques to curb the fraudulent practices in the banking sector while forensic accounting, data mining, digital analysis software are not generally used instead of its high rating of effectiveness due to lack of resources in banking institutions. Rahman and Anwar, (2014) opined that protection software such as password protection, firewalls and filtering software are the most effective techniques followed by process control, continuous monitoring and information sharing used by banking sector in fraud prevention whereas inspection tools are less effective in fraud detection. Decision Tree, Support Vector Machine and Logistics Regression techniques of data mining used in making decisions about credit card approval helps in preventing fraud from occurrence while clustering model and EM algorithm techniques of data mining helps in fraud detection by identifying any suspicious activity in transactions (Chitra and Subashini, 2013). Soni (2019) observed that artificial intelligence techniques help in prevention and detection of fraudulent practices in banking sector. There must be an effective information sharing mechanism regarding fraudulent financial practices among financial institutions (Akelola, 2015; Fouzi, Szulczyk and Basyith, 2018; Agwu and Edwin, 2014). Banks should develop code of ethics and code of conduct over dormant accounts (Lois and Velli, 2019). Co-operation must be established with the criminal justice system to discourage the potential financial offenders (Prabowo, 2011). Sanusi et al. (2015) stated that corporate governance and fraud prevention program had a negative effect on internal and employee related frauds while risk management was negatively related to customer related frauds in banking sector. Kamande, Kiragu and Musumba (2018) suggested that banks must conduct regular internal auditing to check out fraudulent practices. Chang (2008) suggested that although information was available on anti-fraud organisation website about advance fee fraud yet there was a dire need to aware the internet users about the means employed by advance fee fraudsters to commit crime. On the other hand, Cross and Cassandra (2019) suggested that police must perform their general duties in prosecuting financial crimes whether it occurred offline or in virtual environment.

Fraud Mitigation Practices:

Kabuye, Nkundabanyanga, Opiso and Nakabuye, (2017) asserted that if internal auditors have strong and appropriate organisational status in terms of dual reporting, unbiased

behaviour and have competencies in terms of adequate knowledge, experience, it significantly contributed in fraud management practices by enhancing fraud detection, prevention and reporting. Salameh, Weshah, Nsour and Hiyari, (2011) stated that in-house internal audit units are more effective in fraud prevention and detection than outsourced internal audit units because the former have more knowledge about banks' internal environment. The study also found that internal auditors may hesitate in reporting top management related fraud due to lack of independence and fear of retribution. If top management provides adequate resources and support to internal auditors it improves the quality of internal auditing in fraud prevention, detection and reporting (Alazzabi, Mustafa and Karage, 2019; Kabuye, Bugambiro, Akugizibwe, Siima and Naigaga, 2019). Further Salehi and Husini (2011) showed that information technology enhanced the quality of internal auditing in performing various analytical and other main operations. The study also stated that with the use of various IT tools auditors can probe in less time as well as make easy and rapid mathematical calculations with greater accuracy. However Lotto (2014) observed that lack of top management support in terms of adequate training programs to auditors and poor allocation of budget to the development of internal audit department contributed to the hindrance of internal auditors' use of technology. Information Technology helps the banking industry to grapple with the challenges posed by economy (Chitra and Subashini, 2013). Drogalas and Siopi (2017) found that risk management is one of the most important objective of any organization to ensure the survival in the long run. Ajibo (2015) further recommended that risk based regulation framework must be adopted to improve the risk management practices in banking sector. Objectives and frequency of internal audit, quality of information proposed by it and competency and professionalism of internal auditors are the three main factors that contribute to effective risk management practices in any organisation (Drogalas and siopi, 2017). Internal auditors ensure the adequacy and effectiveness management risk control system and high quality internal audit leads to effective risk management practices in the banking sector (Alazzabi et al., 2019; Kabuye et al., 2019). Kabuye et al. (2019) further stated that top management plays a major role in effective risk management practices by designing and implementing strong internal control mechanisms. While Abdullatif and Kawuq (2015) found that in Jordanian banking sector internal auditors played a limited role in risk management practices. They mainly dealt with risks related to non-compliance of regulations and not involved in managing the risk associated with Jordan economy and culture. Internal auditing plays an important role in fraud prevention and detection in the banking sector (salameh et al., 2011).

4. RESEARCH GAP

After reviewing the literature, it has been found that growing number of bank fraud is a grave matter. Recent banking crises have drawn the attention of modern researchers to invent the measures to cope up with this problem. Very few studies have been conducted in this area presently. Following research gap has been identified after going through the study:-

a) In this area, the research work has been done in foreign countries in general while in Indian context the same has been studied meagerly.

b) Concept of various red flags used for fraud identification in banking sector has not been widely studied in Indian context.

c) Further, there has not been up to the mark research work in India with respect to fraud prevention and detection techniques used in banking sector.

d) According to researchers' knowledge hardly any study has been conducted on exploring the relationship between Risk Management, Top Management Support, Internal Auditing Activities, Information and Communication Technology and Fraud Mitigation.

5. RESEARCH OBJECTIVES

1. To examine the perception of bankers' with regard to effectiveness of red flags used for fraud detection in banking sector.

2. To study the perception of bankers' towards effectiveness of fraud prevention and detection techniques used in banking sector.

3. To study the perception of banks' internal auditors with respect to the role of risk management, top management support, information and communication technology and internal auditing activities in fraud mitigation in banking sector.

6. SIGNIFICANCE

Fraud has become a universal problem. It is even more pronounced in the financial service sector. Fraud incidences cause significant damages to both organizational resources and reputation. It also hamper the development of nation's economy. Firstly, this study will provide information about various fraud prevention and detection techniques used in banking sector. Secondly, it will provide information on effectiveness of various red flags used in fraud detection in banking sector. Thirdly, it will provide information on contribution of various factors such as information technology, management support, internal auditing and

risk management in fraud mitigation practices in banking sector. It will add to existing body of knowledge. And lastly it will guide the regulators and policy makers to develop such measures which maintain integrity, transparency and accountability in banking industry so as to protect banks from getting failure.

7. RESEARCH METHODOLOGY

7.1 Research Design: This study is descriptive cum exploratory in nature.

7.2 Type of data: Primary data will be used for the purpose of the study. Secondary data will also be used for exploring the relationship among different variables.

7.3 Sampling Plan:

- **Sampling Unit:**

  The target population for the study would include two sampling units. One would include bank professionals with at least 5 years' experience. Second unit would include internal auditors of banks.

- **Sampling Area:**

  Research study will be conducted in Haryana and National Capital Region.

- **Sample Size:**

  Sampling size would include 500 bank professionals and 200 internal auditors of banks.

- **Sampling Techniques:**

  Sample will be selected by using snowball sampling method.

7.4 Research Instrument:

Structured self- administered questionnaire would be used. The questionnaire would include questions pertaining to the awareness and perceptions about various red flags, fraud prevention and detection techniques used in banking sector. Questions about fraud mitigation, risk management, top management support, internal auditing activities and information and communication technology would also be included.

7.5 Statistical Tools:

Descriptive Statistics, factor analysis would be used to reduce the collected data. Any other relevant statistical technique would also be used according to suitability during research.

8. ORGANIZATION OF THE STUDY:

The tentative chapter scheme of the proposed research work is as follows:

- **Chapter 1- Introduction:**
  This chapter would cover introductory explanation of various frauds and fraud mitigation practices in banking sector.
- **Chapter II- Review of Literature:**
  This chapter would provide a detailed review of relevant theoretical and empirical literature on concept of fraud in banking sector. Various fraud management practices adopted by different countries would also be studied in this chapter.
- **Chapter III- Research Methodology:**
  This chapter would include research objectives, research questions, hypothesis, sampling design, sample size, sampling unit, nature of data, research instruments to be used for data collection.
- **Chapter IV - Analysis and Interpretation of Data:**
  This chapter will deal with the analysis and interpretation of the data that would be taken objective wise.
- **Chapter V- Conclusion and Recommendation:**
  This chapter would summarize the research highlights. The significant theoretical and practical contributions would be presented. Finally, the thesis would conclude with the limitations of this study and provide suggestions on possible future research direction.

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Signature of Supervisor Signature of Candidate

(Dr. Deepa Mangala) (Lalita)

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Signature of Director

(With Official Seal)